REMARKS

Claims 1, 4-5, 7-8 are pending in this application. Claims 10, 13-14 have been canceled (without prejudice) to simplify the application. Claims 21 and 25 (which the Examiner characterizes as withdrawn from consideration for being independent or distinct from the other claims) are canceled above (along with claims 23 and 24 dependent on claim 21), also to simplify the application and also without prejudice.

In the office action, claims 1, 4-5, 7-8, 10, 13-14, 23-24 have been rejected under 35 U.S.C. 102(e) as being anticipated by Chakravarti et al. ('772).

Applicants respectfully traverse the anticipation rejection.

Chakravarti '772 does not disclose a "process for growing amorphous or polycrystalline silicon" as in Applicants' claim 1. In Chakravarti '772, there is not a disclosure that "amorphous or polycrystalline silicon is grown" as in Applicants' claim 1. The Examiner has not addressed this claim element in the final office action.

Another difference is that Chakravarti does not disclose using silane (SiH_4), disilane, trisilane, hexachloro disilane or dichloro silane with BTBAS (as recited in Applicants' independent claims 1 and 10, paragraphs (A) and (B)) in a RTCVD or PECVD process (as recited in Applicants' claim 1). The parts of Chakravarti that the Examiner cites in the final office action do not identically disclose what is presently claimed:

Namely, col.1, lines 10-16 only discloses silane or dilane (without disclosing additionally to mix BTBAS as recited in Applicants' claims 1 and 10) in a CVD process (which is not an RTCVD or a PECVD process as recited in Applicants' claim 1);

Col. 1, lines 17-20 (Background section) disclose making silicon nitride films, not growing amorphous or polycrystalline silicon as recited in Applicants' claim 1.

Col. 1, line 18 (Background section) discloses mixing dichlorosilane with ammonia (not with BTBAS as recited in Applicants' independent claims 1 and 10), and what is being made is a silicon nitride film (not amorphous or polycrystalline silicon as recited in Applicants' claim 1);

Col. 1, line 19 (Background section) discloses mixing silane with ammonia (not with BTBAS as recited in Applicants' claims 1 and 10), and again, what is being made

is a silicon nitride film (not amorphous or polycrystalline silicon as recited in Applicants' claim 1);

Col. 2, lines 35-40 only discloses BTBAS with other gases NOT with silane, disilane, trisilane, hexachloro disilane or dichloro silane as recited in Applicants' paragraphs (A) and (B) of claims 1 and 10. As permissible additional components, Chakravarti '772 mentions inert gases (nitrogen, argon, helium); oxidizing gases (oxygen, ozone, nitrous oxide, nitric oxide, nitrogen dioxide, and carbon dioxide); and reducing gases (NH_3)--not silane, disilane, trisilane, hexachloro disilane or dichloro silane.

Col. 4, lines 50-60 which the Examiner has cited is in the Example, does not disclose Applicants' presently claimed invention. In that Example, helium is bubbled through liquid BTBAS and delivered to a silicon substrate. Ammonia and nitrous oxide are also introduced to the chamber. The '772 Example does not disclose using any of the ingredient (A) components (silane, disilane, trisilane, hexachloro disilane or dichloro silane) of Applicants' claims 1 and 10. Nowhere does Chakravarti '772 teach or disclose to mix silane (or a silane derivative named in Applicants' paragraph (A) of claims 1 and 10) with BTBAS.

BTBAS is disclosed for use in the '772 invention. When silane and disilane are mentioned in the reference, it is not for use in the invention, but only as (non-BTBAS) background processes. The reference does not teach or disclose use of silane or disilane together with BTBAS.

Thus, for the several reasons set forth above, Applicants' independent claims 1 and 10 are distinguished from and not anticipated by Chakravarti '772.

Additionally, the difference of Applicants' presently claimed invention from the '772 patent is substantial. In the Background section of the '772 patent, after silane is mentioned as a commonly used precursor in CVD of silicon-based films, the rest of this section (col. 1, lines 20-45, especially lines 37-40) discusses the drawbacks of using silane precursors. Thus, a person of ordinary skill in the art would not reasonably be expected to modify Chakravarti '772 in that direction. The presently claimed invention therefore may be appreciated to be non-obvious over the '772 patent.

Without commenting on each claim, several additional remarks are as follows.

As to claim 4, the Examiner has cited Fig. 2 of Chakravarti '772. However, that Fig. 2 does not disclose BTBAS with SiH_4 (silane). Rather, in Chakravarti's '772, BTBAS

is used with ammonia. Moreover, in Fig. 2 of the reference, it is carbon-enriched silicon nitride film being made, not amorphous or polycrystalline silicon that is being grown.

As to claim 5, which recites that "a polysilicon film is grown," the Examiner again has cited col. 2, lines 10-15 of the reference which mentions "silicon oxide" films. Silicon oxide is not polysilicon.

As to claim 7, which recites mixing silane with BTBAS, the Examiner again has cited Figs. 1 and 2 of the reference, neither of which figure involves use of silane (which is formula SiH_4).

As to claim 8, which recites mixing silane with BTBAS, the Examiner has cited col. 4, lines 45-60, which fails to disclose to mix BTBAS with silane.

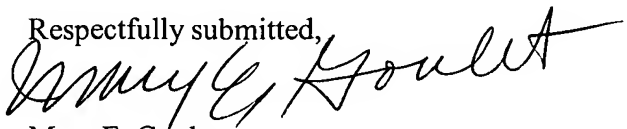
Wherefore, in view of the above, reconsideration and withdrawal of the anticipation rejection are respectfully requested.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1, 4-5, 7-8 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees for the petition or for entry of this amendment to Attorney's Deposit Account No. 09-0458 (IBM Fishkill).

Respectfully submitted,



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